MicroHeat®
Hot water just got smarter

Continuous Flow Electric Water Heater

INSTALLATION MANUAL

Single Phase CFEWH Series 1-10 Premium Model. Extension pipe cover sold separately.

CFEWH SERIES 1-10

AUSTRALIAN MADE AND OWNED

www.microheat.com.au

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The company accepts no responsibility for the failure of this appliance if it has not been installed and operated in accordance with the instructions provided. The information in this Manual is correct as at 1 April 2013, but the manufacturer reserves the right to make changes to specifications without prior notice. All information provided E&OE. Copyright © 2013 All Rights Reserved. MicroHeat and its associated logo are Registered Trademarks of MicroHeat Technologies Pty Ltd. MicroHeat products are manufactured under one or more Patents, which are in force. The Product is Patent Cooperation Treaty (PCT) Protected, and Trademarks Protected

Introduction

This Installation Manual covers SERIES 1-10 Premium and Standard models of the Continuous Flow Electric Water Heater [CFEWH].

VOLTAGE

The CFEWH is Single Phase 240VAC LIVE-NEUTRAL/GROUND.

Full specifications are on page 19 in the Reference section.

Premium CFEWH

CFEWH SERIES 1-10P

The Exterior Cover includes a display showing Output Water Temperature and Flow Rate

Standard CFEWH

CFEWH SERIES 1-10S

The Exterior Cover has only a RED/GREEN indicator LED.

IMPORTANT

Please ensure you read through the Installation Checklist on page 6 before commencing installing any unit.

About the Continuous Flow Electric Water Heater [CFEWH]

What makes this product so unique and different?

The Continuous Flow Electric Water Heater [CFEWH] uses innovative new technology to deliver hot water instantly … and achieve impressive efficiencies in both water and energy usage.

We'd like to explain how it's so different from other hot water systems – and why it's setting completely new standards.

To fully appreciate the difference – and the substantial benefits – offered by the technology used in this water heater, we need to start off by comparing the main deficiencies of traditional hot water systems.

Heating water the traditional way

Traditional centralised hot water services consume continuous energy to heat water and then maintain it at a defined (thermostat-controlled) temperature, ready for when it's wanted. Typically, the water heater is located away from where the water is wanted, relying on lengths of pipe to deliver the water. Energy is therefore wasted keeping quite a large volume of water at a stable temperature – often at a higher temperature than would ever be used.

But that's not all – water is wasted every time a hot water tap is turned on. That's because you need "to let the water run" until the water held in the pipes has made way for the hot water you want, coming from the water heater.

The overall result is quite inefficient usage of power together with wastage of water.

The MicroHeat difference

The engineers at MicroHeat set out to create something completely different from existing methods of providing hot water: a highly efficient new method of heating water that would address the wastage of valuable resources – energy and water.

The Continuous Flow Electric Water Heater [CFEWH] is a very compact unit, which provides an instant and continuous flow of hot water wherever it's required – delivered through very short lengths of pipe. Water isn't wasted, because you're not leaving it running, waiting for it to get hot. Hot water is always at a stable temperature, despite any fluctuations in water pressure.

You don't need a science degree to understand how the efficiencies and savings are achieved – all you need to do is follow our simple explanation.

The secret of "optimised" energy

The unit intelligently optimises the amount of energy it needs to heat water, depending on how much water you want.

For example, let's assume hot water is required at 45°C.

If you want a fairly fast flow of water – 4 litres a minute – the unit will use its full power – 9.6kW – to heat the water.

However, if you only want a low flow of water – 1.5 litres a minute – the unit will use just 4.2kW to heat the water.

The benefit is the unit can intelligently vary itself between being a 9.6kW and 4.2kW system. The lower flow rate achieves 56% less energy consumption – and that contributes to lowering power bills.

In addition, varying the flow rate of the water contributes to lower water consumption and achieves further savings. Reducing water flow from 4 litres a minute to 1.5 litres a minute lowers water consumption by 66%.

Incoming water temperature makes a difference

The unit also achieves savings in another area – by intelligently varying its power between 9.6kW and 7kW to heat incoming cold water.

Depending on where you're located and what season it is, mains cold water temperature could potentially fluctuate anywhere between 10°C and 25°C.

Let's again assume hot water is required at 45°C and you want a fairly fast flow of hot water – 4 litres a minute.

If the incoming water temperature is a fairly chilly 10°C, the unit will apply its full power of 9.6kW – however, if it's a pleasantly warm 25°C, it will only use 7kW. That's 20% less energy consumption – making a further contribution towards lowering power bills.

We hope you now have a better understanding of how the Continuous Flow Electric Water Heater [CFEWH] is revolutionising hot water.

Although the Continuous Flow Electric Water Heater [CFEWH] is very safe to use, this appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

Installation Checklist

Please read through this section before commencing installation, to ensure you are familiar with the component parts and the fitting procedure.

This unit must be installed by:

A Licensed Electrician, ensuring installation conforms to all current electrical wiring standards.

A Licensed Plumber, ensuring installation conforms to all current plumbing standards.

The CFEWH must be installed in a vertical position on an internal wall, or in an internal cupboard or space.

If the safety rules or the instructions outlined in this manual are not followed correctly, the unit may not operate properly and could cause damage to property, serious bodily injury and/or death.

MicroHeat nor its Distributors will be liable for any damages due to failure to comply with the installation and operating instructions outlined in this manual or through improper use.

Improper use includes the use of this appliance to heat any liquid other than potable water within the conductivity range specified in this manual. Refer to the Reference section – page 19.

IP Rating – The unit is rated as IP44. The appliance must be installed inside a dwelling or construction and should not be exposed to splashing water, rain or any circumstance that will allow water to enter the outside cover.

Ambient Temperature – The unit is intended for internal installation and should not be installed in an environment where there is a possibility of the ambient temperature dropping below 5°C.

WARNING

In accordance with AS 3498, this appliance will not deliver temperatures exceeding 50°C.

Water temperatures greater than 50ºC can cause scalding. Care should be taken with children and people with limited sensory, physical, and/or mental capability.

There is no requirement in AS/NZS 3500.4 to fit a temperature limiting device if this water heater is installed in any location other than in an early childhood centre, school, nursing home or a facility for young, aged, sick or disabled people, where temperature limiting devices may be required.

IMPORTANT

Failure to comply with the installation and operating instructions or improper use voids the warranty.

Never remove the unit cover unless the electricity is turned off at the isolation switch or switchboard.

To reduce the risk of electric shock or injury to persons or property, please follow the installation instructions carefully.

IMPORTANT

Where the ambient temperatures are likely to approach freezing – ie: less than 5°C – the unit must be drained of water to prevent frozen water damage occurring.

Failure to comply with the installation and operating instructions or improper use voids the warranty.

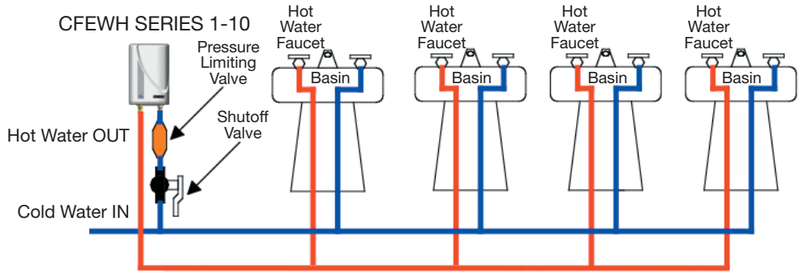
Pre-installation

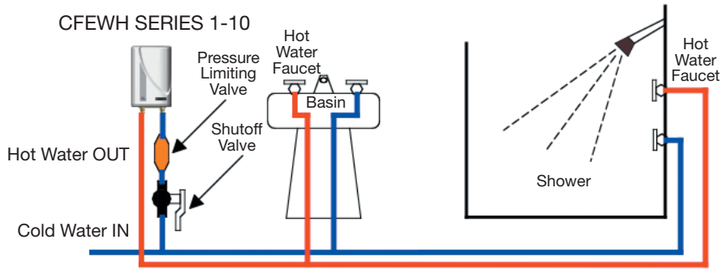
Installation Locations – Options

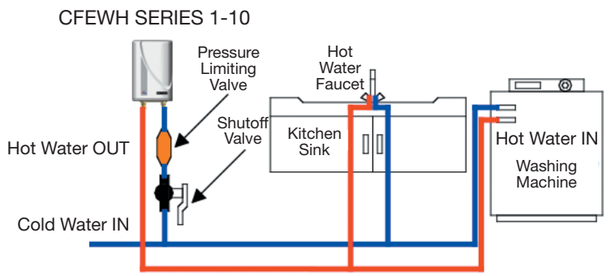
These suggested options show how the unit can be fitted in three situations, covering bathroom, kitchen and laundry.

Please note that the location and installation of the unit is not limited to the options shown here.

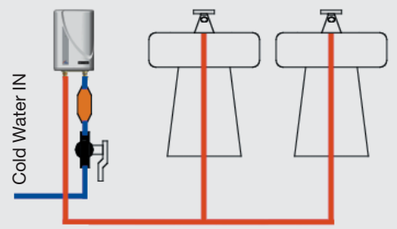
The CFEWH must be installed in a vertical position on an internal wall, or in an internal cupboard or space.







NOTE: All options can be installed without cold using Pre-set Temperature



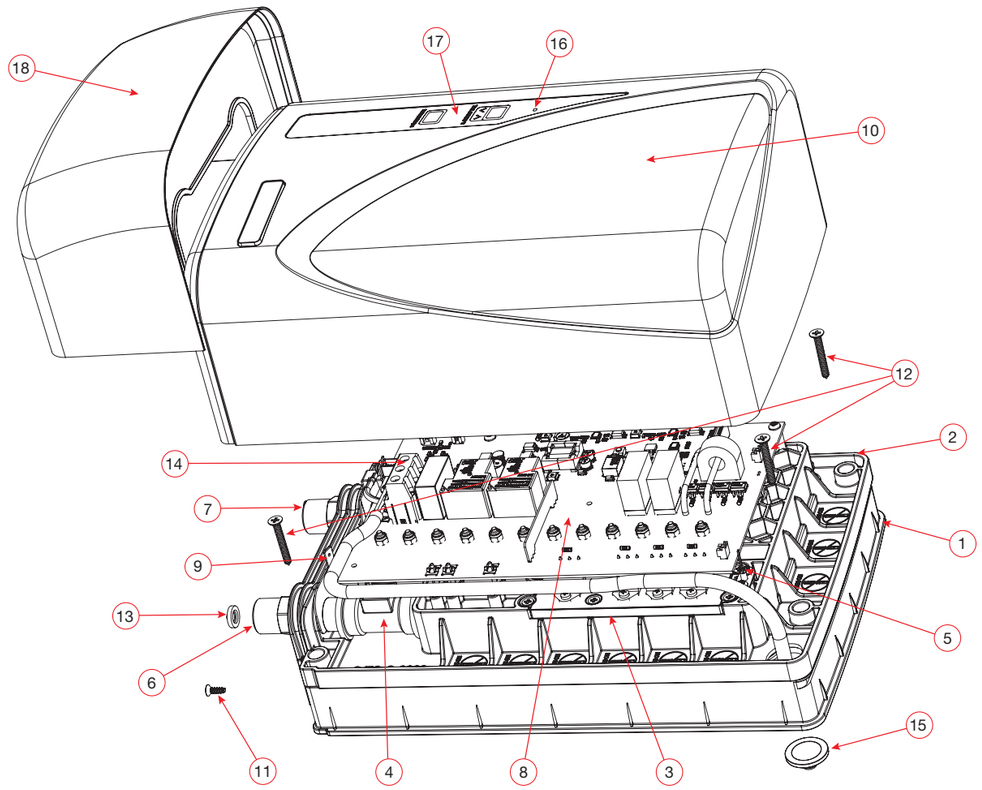
NOTE

This appliance can also be fitted as a Tandem Hot Water Service.
Please refer to the Tandem Hot Water Service Guide for full information.

Component Guide

This is an at-a-view guide to the 12 steps required to install the unit.

It will allow you to become familiar with the component parts of the unit and will assist you during the installation process. Full details for wall mounting, electrical and plumbing installation are provided in the following sections.



CFEWH SERIES 1-10

ITEM	PART NUMBER
1	CFEWH Chassis
2	CFEWH Top Cover
3	CFEWH Heat Sink
4	CFEWH Flow Rate Sensor
5	CFEWH Temperature Sensor, Receptacle, Cable and Plug Assembly
6	CFEWH Half Inch Inlet Water Connection
7	CFEWH Half Inch Outlet Water Connection
8	CFEWH PCBA V6.2
9	CFEWH Earth Locking Mechanism
10	SERIES 1-10 – CFEWH Exterior Cover (Premium)
11	Pan Phillips Head Self Tapping Screw x 2 – Exterior Cover Screws Included in the packaging – provided separately in the small satchel

ITEM	PART NUMBER
12	CFEWH Wall Mounting Screws (Not included in the packaging)
13	CFEWH Inlet Filter
14	PCB Terminal Block
15	Electric Mains Supply Cable Gland
16	RED/GREEN LED – CFEWH (GREEN Ready/RED Error)
17	Flow Rate/Temperature Setting Display
18	Extension Cover (Optional)
19	Display PCB, Cable and Plug*
20	Display PCB (CFEWH SERIES 1-10 Premium ONLY)*
21	Reset Button*

*shown on page 17

Installation Procedure

1. Remove the CFEWH Exterior Cover (10).
2. Carefully remove the Display PCB/LED plug and cable (19) (See Page 17) connecting either the Display PCB or Indicator LED on the outside of the Exterior Cover to the PCBA (8).
3. Mount the unit onto the wall. (See page 11)
4. The electricity supply cable must be brought through the electric gland, and then mounted. The cable enters from the rear of the appliance.
5. Ensure the Circuit Breaker and the Isolation Switch (if installed) supplying the Live 240VAC electrical mains to the CFEWH is turned **OFF.**

   Bring the electrical mains supply cable through the Electric Mains Supply Cable Gland (15) at the top right side of the CFEWH Chassis (1).

   Connect Live (L)/Neutral (N) and Ground to the CFEWH PCB via the PCB Terminal Block (14).
6. Carefully replace the plug and cable (19) (See Page 17) connecting the Display PCB/LED indicator to the PCBA (8).

   Place the Exterior Cover (10) over the Chassis (1) and securely affix the two Exterior Cover Screws (11).
7. Connect the Water Pressure Limiting Valve (5.0 bar/72.5 psi/500 kpa) and Shutoff Valve – not a Stop Tap.
8. Connect the water supply via the shutoff valve and pressure limiting valve to the unit.

   *Connect the cold water in to the Inlet Water Connection (6) (**BLUE**). NOTE: Flush the cold water line before connecting to the unit.*
9. Connect the hot water supply to the point of use.

   *Connect the hot water from the Outlet Water Connection (7) (**RED**) to the point-of-use.*
10. Run water through the unit without power to ensure there are no leaks.

    *Turn the water **OFF**.*
11. Switch **ON** the Circuit Breaker and Isolation Switch supplying the electric mains power to the unit and check if the unit is turned ON. Check the indicator LED (16) on the Exterior Cover (10).

    If there is no power supplied to the unit, the LED will not be illuminated.

*When power is first applied to the unit, the initial start up check begins, and the LED will change colour from **GREEN** to **RED** while the check sequence is ongoing.*

*After the initial start up check is complete, and no errors are detected, the LED on the front of the Exterior Cover (10) should illuminate **GREEN** and flash slowly.*

*In the event of a system error or failure, the LED will either flash or illuminate **RED**. See page 22 in the Reference Section for the List of Error Descriptions.*

*If the LED illuminates **RED** constantly, the unit has entered an irresolvable error condition, and requires technical intervention.*

- *Switch off the Isolation Switch to turn the unit OFF.*
- *Contact MicroHeat Technical Support on (03) 9681 7088.*

*If the LED flashes **RED**, the unit has entered a resolvable error.*

*The LED will continue to flash **RED** until the unit control has resolved the problem.*

- *Once resolved, the LED will stop flashing **RED**, and will change to slow/fast flashing **GREEN**.*

IMPORTANT If the system errors persist, there is a system failure that requires technical intervention.

12. If the LED is slow flashing **GREEN**, the unit is in standby mode and is ready for use.
13. Turning hot water on will initiate the heating process and hot water should exit from of the point of use water outlet. The LED will illuminate as fast flashing **GREEN**.

NOTE It is possible for the water to be too pure. This is not an error condition. In this situation, the appliance will simply perform poorly and will not operate as specified. The **ORANGE** LED located on PCBA (8) will be constantly illuminated. (See page 23 for the location of the **ORANGE** LED).

Exterior Cover Removal and Replacement

The procedure for removing the Exterior Cover requires the following steps:

Step 1

Find a clean flat surface and place the unit on its back.

Using both your thumbs and forefingers, grip the Exterior Cover (10) firmly along the bottom of the unit, and push the cover slowly up to separate it from the Body of the unit.

IMPORTANT: DO NOT PULL COVER AWAY COMPLETELY JUST YET.

Step 2

When the Exterior Cover is about 45° from the Body, reach into the unit and disconnect the LED Indicator/ Display PCB Plug and Cable (19) (See Page 17) from the socket on the PCBA.

You can now lift off and separate the Exterior Cover completely from the Body.

TO REPLACE THE EXTERIOR COVER, DO THE SAME STEPS IN REVERSE AND THEN MOVE ONTO STEP 3.

Step 3

Using a Phillips head screwdriver, affix the Pan Phillips Head Self Tapping Screws x 2 (11) (provided separately in the small satchel) to secure the exterior cover to the chassis. It is a safety requirement to ensure the unit cannot be easily opened.

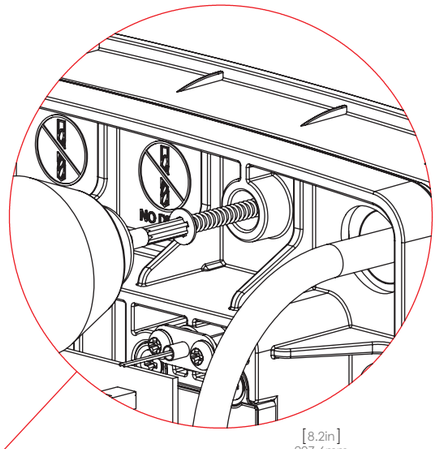
Mounting to the Wall

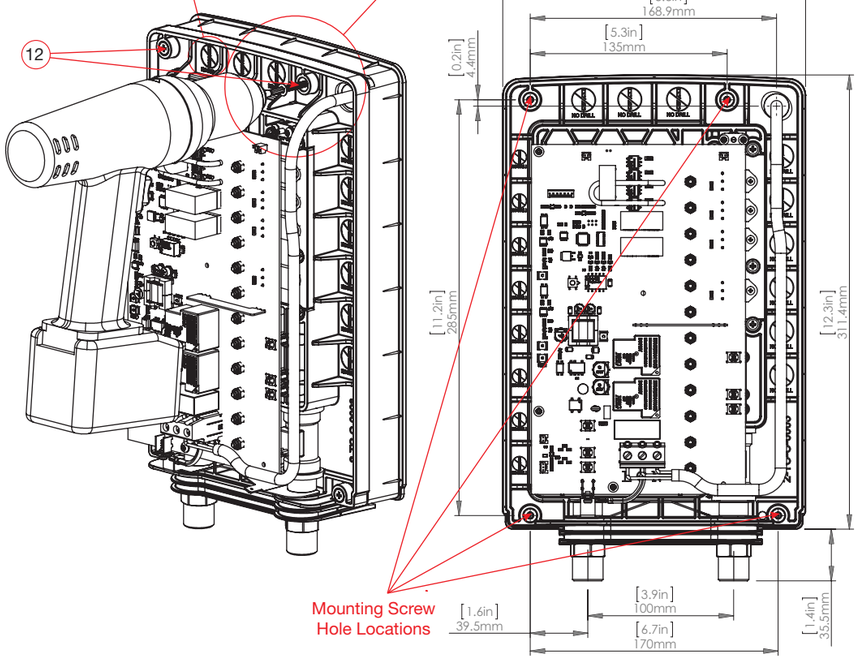
The unit must be mounted onto a solid internal wall, or in an internal cupboard or space, in the vertical position using the 4 x Mounting Screws (12) placed within the Mounting Screw Hole Locations as shown. The maximum screw head diameter is **8mm**. A screw head larger than 8mm will damage the mounting boss and crack the body. THIS WILL VOID THE WARRANTY.

The mounting method used to fix the unit to a vertical wall must be capable of continuously supporting a minimum weight of 10kg.

When mounting the unit onto a rough surface (ie: a brick wall or similar), a backing board should be mounted to the wall first. The unit can then be mounted onto the backing board. This will allow the Exterior Cover (10) to be properly fitted to the unit.

WARNING
Body must **NOT** be drilled, note: "**NO DRILL**" symbols located on Flange





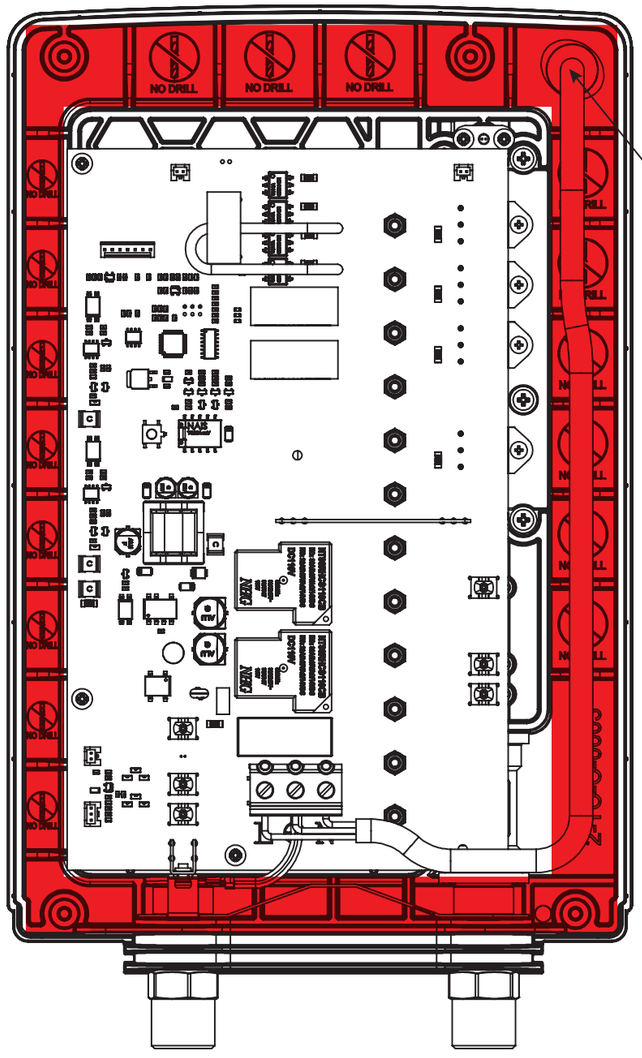
Mounting to the Wall (cont.)

IMPORTANT

When mounting the unit to a wall, it is very important that no holes are drilled within the area shown below in RED.

The Cable Gland Fitting hole (15) must not be opened out.

Holes drilled within this area, or opening out the Cable Gland Fitting hole, will make the unit inoperable and irreparable. It will also void the warranty.



Connection to Plumbing

The installation must comply with the relevant Australian Standards and Industry Codes: Plumbing and drainage – Heated water services AS/NZS 3500.4

The Inlet (6) and Outlet (7) water connections are both ½" BSP SERIES GB.

Mount the appliance in a vertical position on an internal wall, or in an internal cupboard or space first – then connect the hot and cold water to the appropriate connections:

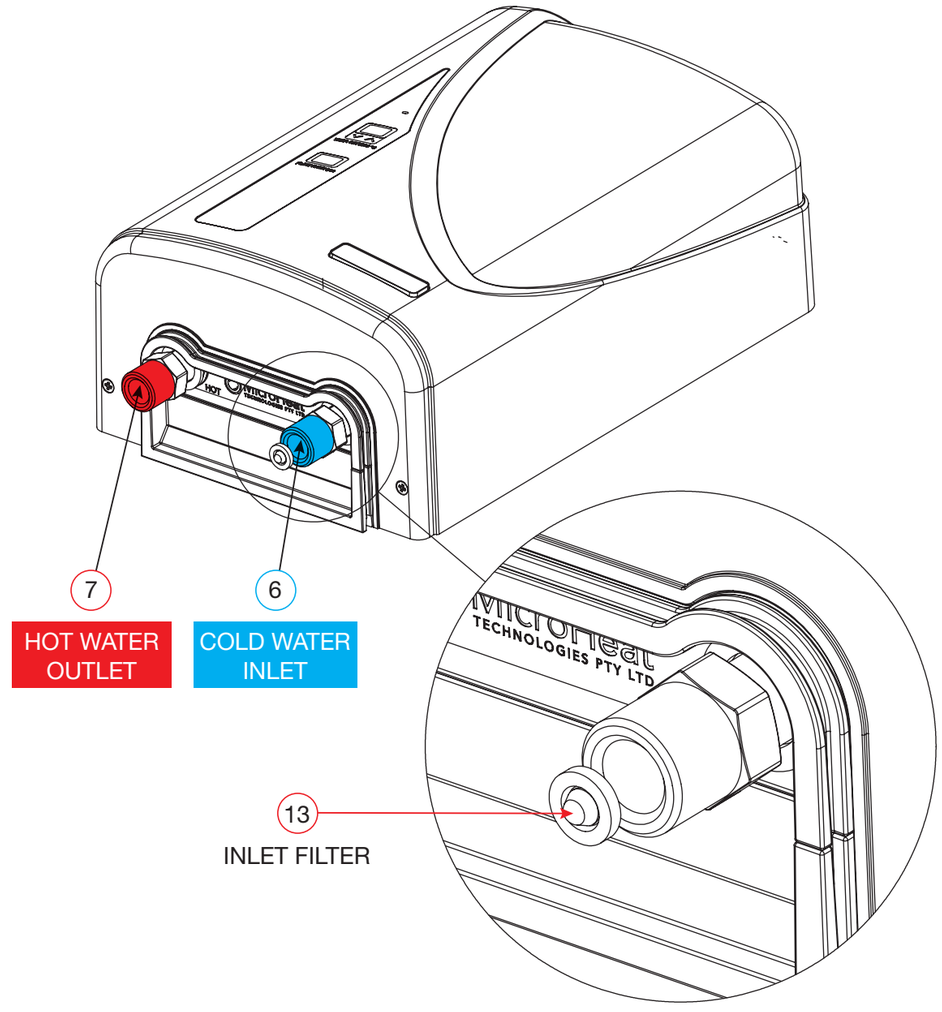
Inlet (6) Cold Water – BLUE

The cold water supply pipe must be flushed before connecting the cold water supply to the inlet (6).

Outlet (7) Hot Water – RED

Effective operation of the unit requires the hot water outlet to be connected to the hot water faucet/valve.

Ensure the Inlet Filter (13) is installed as shown.



Connection to Plumbing (cont.)

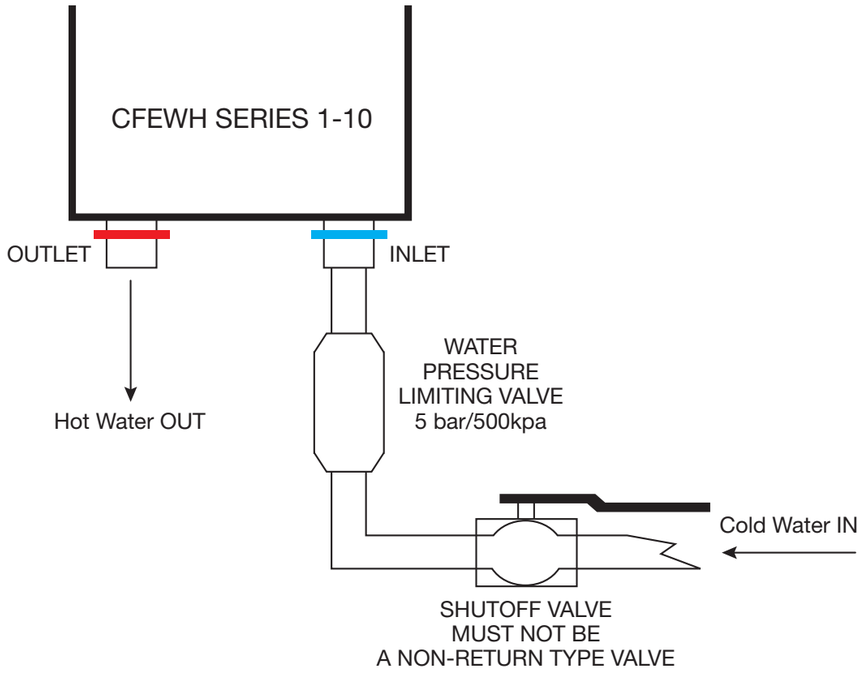
Water Inlet Pressure Limiting Valve and Shutoff Valve Connection

The unit is a closed outlet water heater and is intended to operate at the pressure of the water mains, where the flow of water is controlled by one or more faucets/valves in the **outlet line**.

The unit can be installed into any type of commercial or residential construction as per the current Plumbing Standards.

However, it is **mandatory** for a water pressure limiting valve and a shutoff valve to be connected in series with the unit's cold water inlet connection (6).

- The unit is designed to operate at 10 MPa/10 bar/150 PSI.
- The installation of a pressure limiting valve – a mandatory requirement – ensures that excess water pressure applied, as result of water hammer and/or other circumstances, does not stress the appliance unduly.
- The inline water pressure limiting valve must be rated at 5.0 bar/72.5 psi/500 kpa.
- The shutoff valve installed **must not be** a non-return type valve.



IMPORTANT

MicroHeat nor its Distributors will be liable for any damages through failure to comply with the installation and operating instructions outlined in this manual – specifically in this instance where the specified water pressure limiting valve and shutoff valve type, as indicated, must be installed with this unit.

Installation

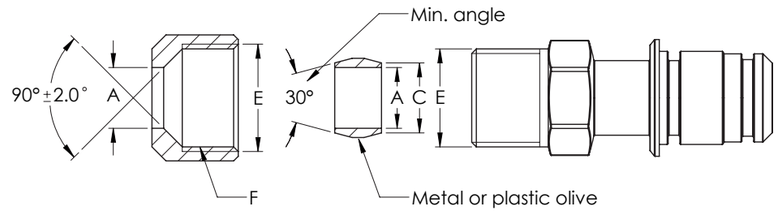
Connection to Plumbing (cont.)

Acceptable inlet/outlet connections

The Inlet (6) and Outlet (7) water connections are both ½" BSP SERIES GB.

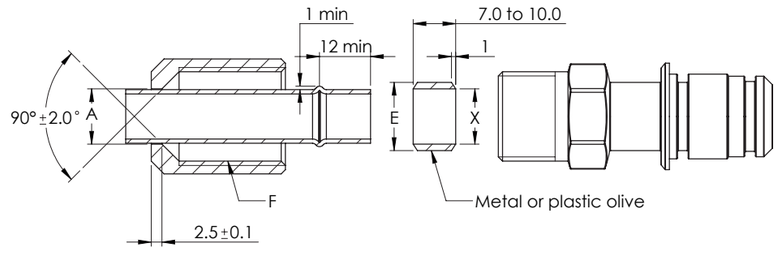
There are three options for inlet/outlet connections with this unit:

Braided Hose without seal



Braided Hose with seal

Straight Copper Tube



Connection to Power

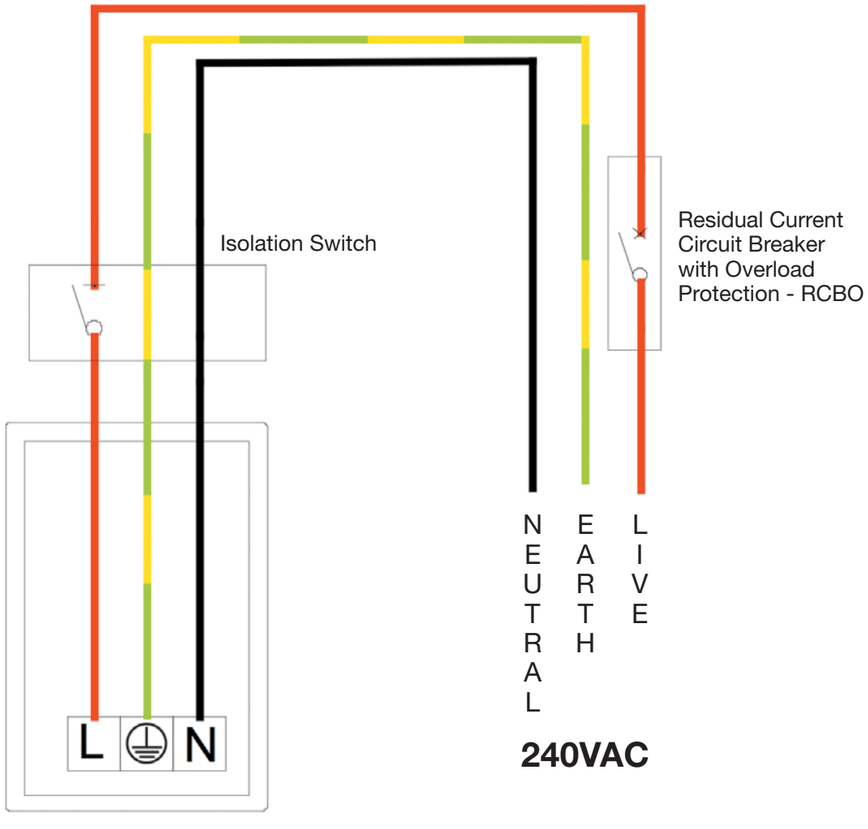
The unit must be connected to LIVE-NEUTRAL/GROUND (LNG) Electrical Mains Supply.

The appliance **must** be connected to the mains supply with fixed wiring. The appropriate mains isolation switch must be incorporated in-line with the fixed wiring electrical supply.

IMPORTANT

This unit is classified as a ***Class I*** Bare Element Water Heater. The appliance **must** be correctly connected to the mains earth.

In order to prevent a hazardous circumstance occurring due to the inadvertent resetting of the thermal cut out, the electrical supply to this appliance **must not** be supplied through an external switching device, such as a timer – nor can it be connected to a circuit that is regularly switched on and off by the electricity supply utility.



CFEWH SERIES 1

Connection to Power (cont.)

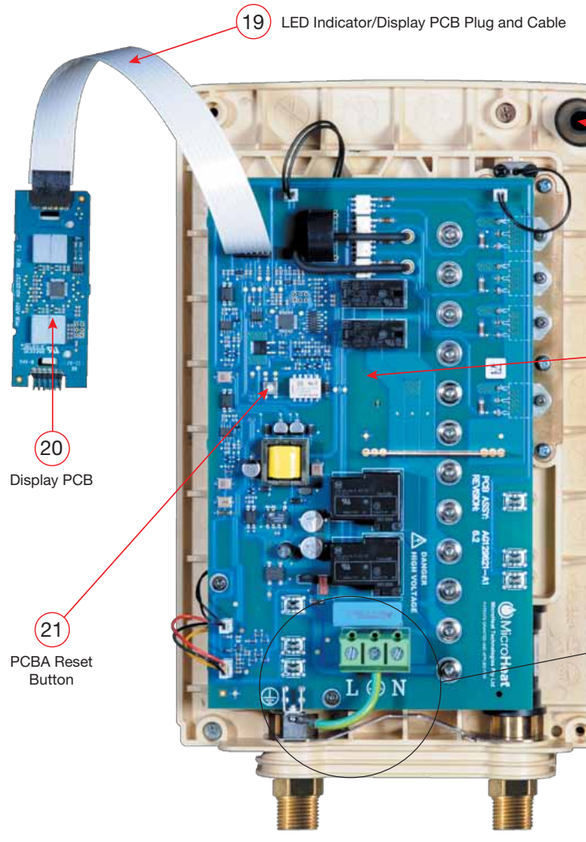
In accordance with the wiring rules, AS/NZS 3000:2007 and IEC 61000-3-11, the CFEWH is intended for use in premises having a service current capacity ≥100 A per phase, supplied from a distribution network having a nominal voltage of 400/230 VAC. The Live-Neutral electrical supply connections Live, Neutral and Ground (Earth ⏚) must be **permanently connected** to the Terminal Block (14) mounted on the PCBA V6.2 as shown – noting the correct polarity **Live – L** and **Neutral – N**.

IMPORTANT

Live-Neutral/Ground (LNG) connection is polarity dependent.
Incorrect wiring connection will cause FC – Earth Leakage Detection Error.

Bring the Live, Neutral supply through the Electric Mains Supply Cable Gland (15) as shown.

The LIVE wire **must** be connected to the terminal **L**
The NEUTRAL wire **must** be connected to the terminal **N**
The EARTH Wire (**GREEN/YELLOW**) **must** be connected to the terminal ⏚



The earth bracket wire provided must
ALSO be connected to the Terminal Block,
together with the electric mains earth connection.

Preparation for Use

After installation, this two step procedure must be followed.

The unit must be primed – this is required only once – nominally at installation.

(Priming is **only** required when the electricity supply to the unit has been turned off/removed from the unit – for example, after a power failure or an isolation switch OFF condition).

Priming is required to set the unit up environmentally to ensure that the heating ramp-up time from start during normal operation will be as short as possible, without incurring power overshoot.

Once primed, the unit will ramp-up to the optimised power required at the time without overshoot.

Note: Power overshoot typically results from the maximum power input required to get a heat exchanger up to working temperature as quickly as possible. ***However, as the unit does not incorporate a heat exchanger, this initial power 'kick' is not required at start up.***

STEP 1: Flush

- Flushing is required to clear the unit of plumbing debris that may have collected in the piping during installation. Remove the Inlet Filter (13) whilst doing this and replace after flushing.
- This is done with the electric power supply turned off.
- Flushing should be allowed to continue for 1 to 2 minutes.

STEP 2: Prime

- Turn the electricity supply on – check for the LED (16) slow flashing **GREEN**. The unit is now in stand-by mode.
- Turn on the hot water faucet to a flow rate greater than 1.5ltr/min (the unit will start heating – check for LED (16) fast flashing **GREEN**), and allow the unit to run for about 3 minutes.

The unit is now primed and ready for use.

Product Specifications

All specifications, stated operational flow rates and output water temperatures are valid within the range of water conductivity:

- 80µS/cm to 800µS/cm + 15% at 20°C (µS–microSiemens)
- 1.25kΩ-cm to 12.5kΩ-cm +15% at 20°C

NOTE: Water conductivity may be less than 80µS/cm. Reduce flow rate to achieve comfortable water temperature. Water conductivity greater than 800µS/cm + 15% will generate an error condition. In this circumstance, the appliance will shut down safely and without damage.

Single Phase – CFEWH SERIES 1-10

Model	CFEWH SERIES 1-10
System Type	Continuous Flow Electric Water Heater (CFEWH)
Heating Method	Optimised Direct Energy Transfer
Capacity	400 ml
Dimensions (Without Extension Cover)	Height 295mm x Width 210.50mm x Depth 125mm
Electrical Rating	
Rated Power	9.6 kW
Voltage	240 VAC
Rated Amperage	40 AMPS
Frequency	50 Hz
Electrical Connection	Live / Neutral / Ground
Operating Parameters	
Switch on Flow Rate	1.5 ltr/min
Maximum Rated Operating Line Pressure	10 MPa / 10 bar / 150 PSI
Output Water Temperature	50°C (Factory Setting)
Minimum Output Water Temperature	20°C
Maximum Output Water Temperature	50°C*
*In accordance with AS/NZS 3498 Section 7.2.1 The CFEWH SERIES 1-10 does **NOT** require the installation of Tempering Valves OR Thermostatic Control Valves	
Standards	
Water Contamination	WaterMark AS/NZS 4020 & AS/NZS 3498
Electrical Safety	AS/NZS 60335.2.35 & IEC 60335.2.35
IP Rating	IP44
EMC	CE/C-Tick

Flow Rates and Output Water Temperature

Flow rate in (ltr/min), related to output water temperature (°C) and optimised electrical energy usage (kW).

The incoming water temperature will vary during Summer and Winter. The following tables show the hot water output temperatures attainable at various flow rates, for each of the CFEWH SERIES 1 Models available.

OUTPUT WATER TEMPERATURE 40°C

	Litres/min	
INCOMING WATER TEMPERATURE	**9.6kW**	**TANDEM 19.2kW**
6°C	4.1	8.1
10°C	4.6	9.2
15°C	5.5	11.0
20°C	6.9	13.8

OUTPUT WATER TEMPERATURE 50°C

(Note: 60°C Setting to be used with tempering valves where required.)

	Litres/min	
INCOMING WATER TEMPERATURE	**9.6kW**	**TANDEM 19.2kW**
6°C	3.1	6.3
10°C	3.4	6.9
15°C	3.9	7.9
20°C	4.6	9.2

Maximum Rated Operating Water Pressure

The maximum operating water pressure is 10 MPa/10 bar/150 PSI.

Water Resistivity

The resistivity of the potable water must not be less than 1.25kΩ-cm, and should not be greater than 12.5kΩ-cm. If the unit is operated with water conductivities outside of this range, it will not function as specified.

IP Rating

The unit is rated as IP44. The appliance must be installed inside a dwelling or construction and should not be exposed to splashing water, rain or any circumstance that will allow water to enter the outside cover.

Ambient Temperature

The unit is intended for internal installation and should not be installed in an environment where there is a possibility of the ambient temperature dropping below 5°C.

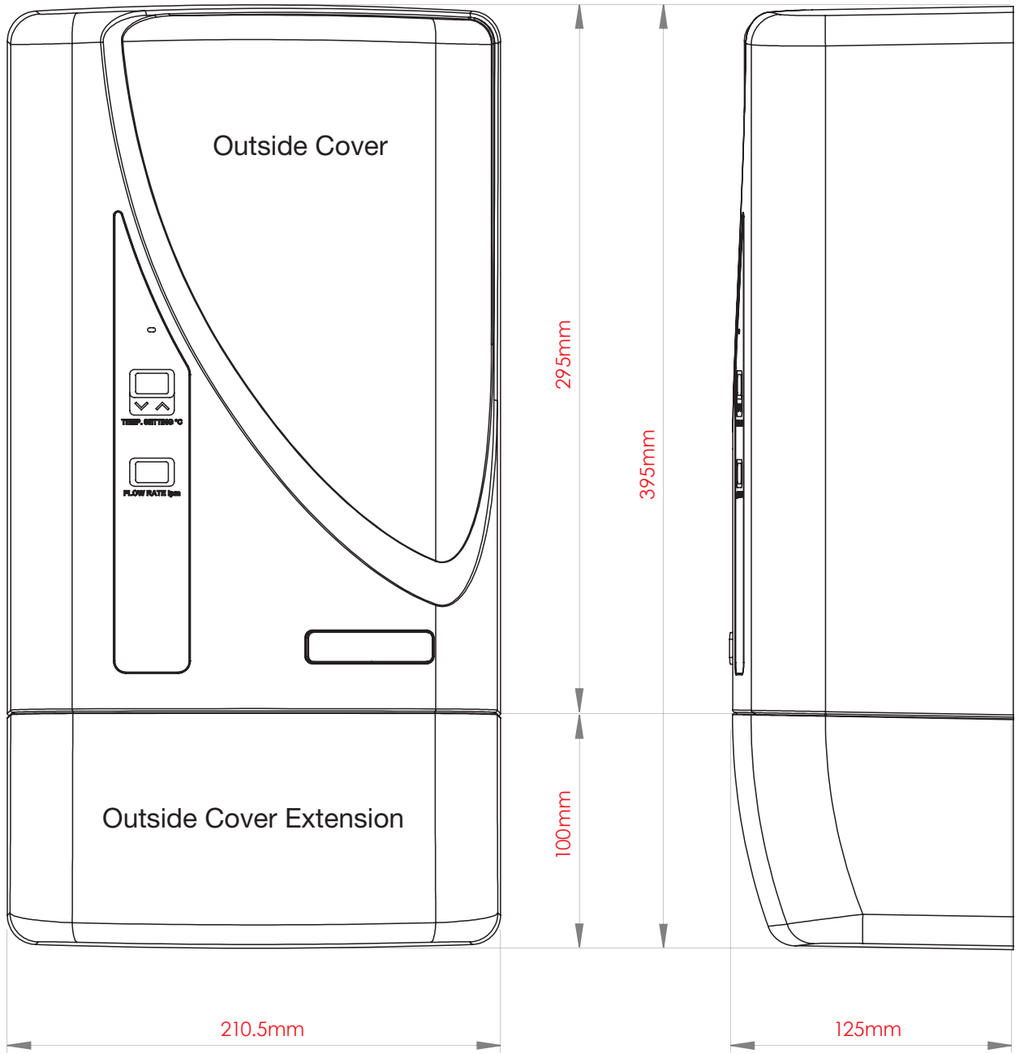
IMPORTANT

Where the ambient temperatures are likely to approach freezing – ie: less than 5°C – the unit must be drained of water to prevent frozen water damage occurring.

Failure to comply with the installation and operating instructions or improper use voids the warranty.

Reference

Dimensions



Diagnositics and Error Descriptions

Error Description (Cause)	Error Code	Error Type	LED Display
Not powered	N/A	No error	No colour
Normal operation standby	00	No error	Slow Flashing **GREEN**
Normal operation – heating	01	No error	Fast Flashing **GREEN**
Water conductivity too low		No error	**ORANGE**
In Priming Mode		No error	**ORANGE**
Operating temperature too low	A4	Blocking / Resolving	Flashing **RED**
Operating temperature too high	A5	Blocking / Resolving	Flashing **RED**
Outlet water temperature 5°C above set point	A6	Blocking / Resolving	Flashing **RED**
Inlet cold water input sensor open circuit	A7	Blocking / Resolving	Flashing **RED**
Inlet cold water input sensor short circuit	A8	Blocking / Resolving	Flashing **RED**
Outlet water temperature sensor open circuit	A9	Blocking / Resolving	Flashing **RED**
Outlet water temperature sensor short circuit	AA	Blocking / Resolving	Flashing **RED**
High temperature limit exceeded >70°C	FA	Mechanical Lockout	**RED**
Over Current Condition	FB	Mechanical Lockout	**RED**
Earth Leakage Detection	FC	Mechanical Lockout	**RED**
CPU Watch Dog Timer Error	FD	Mechanical Lockout	**RED**
Temperature Controller Error (A6 Error >5 times in one operation)	FE	Mechanical Lockout	**RED**
Unknown Failure	FF	Mechanical Lockout	**RED**
Water Conductivity too high	FB	Mechanical Lockout	**RED**

Mechanical Lockout Error

The mechanical lockout condition is indicated by the LED illuminating **RED** continuously.

The unit incorporates an error detection process that may result in a mechanical lockout condition. This indicates a serious malfunction that cannot be automatically resolved and will require manual intervention.

Normal operation **cannot be resumed by switching the appliance OFF and ON**. Manual Intervention Procedure is required.

Error Code Display

(Only viewable on the CFEWH SERIES 1 PREMIUM Model)

If the unit experiences some type of malfunction, the LED indicator will also display an error code. You will see Er appear in the TEMP SETTING window and then an alpha-numerical code in the WATER FLOW RATE window.

For example – this shows error code A6:

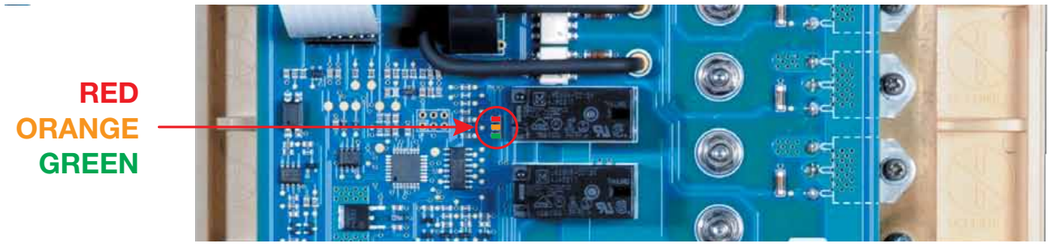
Manual Intervention

IMPORTANT – The Manual Intervention procedure must only be performed by a trained professional.

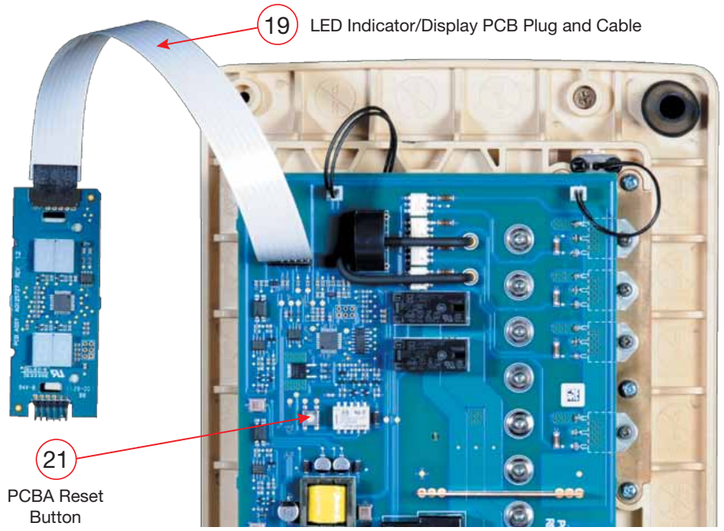
The problem may be resolved by resetting the unit by pressing the PCBA RESET Button (21).

This can be done by following these steps:

1. Remove the Exterior Cover and unplug the connecting cable (19) from the PCB.
The three LED indicators on the PCB will be illuminated when the unit is in standby, running or in error mode.



2. Depress the PCBA RESET Button (21) mounted on the PCBA (8).



If the error has been successfully RESET, the **GREEN** LED on the PCB will start to flash slowly, indicating the unit is now in standby mode.

IMPORTANT

- If the **RED** LED remains either flashing or illuminated, an error condition is still present. There are NO user serviceable parts inside the housing, so no further action can be taken.
- Call for a qualified Service Technician/Installer to attend.

3. Reconnect the Connecting Cable (19) and replace the Exterior Cover.

Maintenance

The unit is designed to provide long and reliable service. Actual life expectancy will vary with water quality and use. The unit itself does not require any regular maintenance.

The CFEWH SERIES 1 has a projected Mean Time Between Failure (MTBF) of 925 hours/17,500 cycles.

However, to ensure consistent water flow, it is recommended to periodically remove scale and dirt that may build up in the Inlet Filter (13), the faucet or in the shower head.

IMPORTANT

Other than the Inlet Filter (13), the unit does not contain any user-serviceable parts. In case of malfunction, a trained service agent, licensed plumber or electrician is required.

Warranty

WARRANTY FOR MICROHEAT TECHNOLOGIES PTY LTD CONTINUOUS FLOW ELECTRIC HOT WATER HEATER (CFEWH) SERIES.

For the MicroHeat Technologies Pty Ltd Continuous Flow Electric Water Heater SERIES (“CFEWH”), MicroHeat will repair or, if necessary, at its sole discretion, replace the CFEWH, which falls within the Warranty Periods and Territory specified below, subject to the warranty conditions and the warranty exclusions.

Warranty Period within Australia, New Zealand and Papua New Guinea is 3 years from the date of purchase by the consumer as defined by the Competition and Consumer Act 2010 (Cth).

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

It is the responsibility of the consumer to provide proof of purchase within the Territory.

WARRANTY CONDITIONS

1. This warranty is applicable only for CFEWH appliances.

2. The CFEWH must be installed in accordance with the MicroHeat CFEWH Installation Instructions, to be supplied with the CFEWH water heater, and in accordance with all relevant statutory and local requirements of the Country or State in which the CFEWH is installed.

3. Where a failed component or CFEWH is replaced under warranty, the balance of the original warranty period will remain effective. The replaced part or CFEWH does not carry a new warranty.

4. Where a failed component or CFEWH is replaced or repaired under warranty, MicroHeat will incur all associated costs. However, where the CFEWH is installed outside the boundaries of a metropolitan area to be defined by MicroHeat or further than 35 km from an Accredited Service Agent, the cost of transport, insurance and travelling costs between the nearest MicroHeat Accredited Service Agent’s premises and the installed site shall be the owner’s responsibility.

5. Where the CFEWH is installed in a position that does not allow safe, ready access, the cost of accessing the site safely, including the cost of additional materials handling and/or safety equipment, shall be the owner’s responsibility.

6. The warranty only applies to the CFEWH and therefore does not cover any plumbing or electrical parts supplied by others and not an integral part of the CFEWH, e.g. pressure limiting valve; tempering valves; isolation valves; shut off valves; electrical switches; electrical cabling; pumps or fuse.

7. The benefits of this warranty are in addition to other rights and remedies of the consumer under laws in relation to the goods and services to which the warranty relates.

8. The CFEWH must be sized to supply the hot water in accordance with the guidelines in the MicroHeat CFEWH literature.

PROCEDURE FOR HONOURING WARRANTY

1. To initiate a claim for a warranty against defects, the consumer shall contact:

MicroHeat Technologies Pty Ltd
Unit 6, 38-42 Sabre Drive
PORT MELBOURNE VIC 3207
AUSTRALIA
Phone: (03) 9681 7088

2. The process will then follow the MicroHeat Product Warranty Flow Chart to assess whether the product is under warranty.

WARRANTY EXCLUSIONS

Repair and replacement work will be carried out as set out in the MicroHeat warranty. However, the following exclusions may cause the MicroHeat warranty to become void and may incur a service charge and/or cost of parts:

1. Accidental damage to the CFEWH or any component, including: Acts of God; failure due to misuse, abuse, fire or flood damage; incorrect installation; damage as the result of transportation, removal or storage; attempts to repair the CFEWH other than by a MicroHeat Accredited Service Agent, the MicroHeat Service Department or a repairer not approved by MicroHeat.

2. Where it is found there is nothing wrong with the CFEWH water heater; where the complaint is related to circumstances where there is no flow of hot water due to faulty plumbing; where water leaks are related to plumbing and not the CFEWH or CFEWH components; where there is a failure of electricity or water supplies; where the supply of electricity or water does not comply with relevant standards, codes or acts, MicroHeat may then charge the consumer a nominal service charge if inspection reveals no fault with the CFEWH unit or its installation.

3. Where the CFEWH or CFEWH component has failed directly or indirectly as a result of excessive water pressure in excess of 10bar; incorrect pressure limiting valves; incorrect tempering valve settings; temperature input in excess of 85ºC and/or excessive thermal input; blocked outlet; corrosive atmosphere; foreign matter in the water supply; or ice formation in the pipe work to or from the CFEWH water heater.

4. Where the CFEWH is located in a position that does not comply with the MicroHeat CFEWH Installation Instructions or relevant statutory requirements, causing the need for major dismantling or removal of cupboards, doors or walls, or use of special equipment to bring the CFEWH to a serviceable position.

5. Repair and/or replacement of the CFEWH due to the effects of either corrosive water or water with a high chloride or low pH level caused by unnatural circumstances or when the CFEWH has been connected to a water supply with water conductivity levels that are outside the range of water conductivity outlined in the Installation Instruction Manual.

Subject to any rights you have under Australian Consumer Law or other statutory provisions to the contrary, this warranty excludes any and all claims for damage to furniture, carpets, walls, foundations or any other consequential loss either directly or indirectly due to leakage from the water heater, or due to leakage from fittings and/or pipe work of metal, plastic or other materials caused by water temperature, workmanship or other modes of failure.

Notes

Contact Details

For technical support during or after installation

phone 03 9681 7088

MicroHeat Technologies Pty Ltd
Unit 6, 38-42 Sabre Drive
PORT MELBOURNE VIC 3207
AUSTRALIA
www.microheat.com.au

MicroHeat TECHNOLOGIES PTY LTD

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IEC 60335.2.35
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E1109-0066-1

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ISSUE 2 April 2013